



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/520,804	01/10/2005	Jens Pollmann-Retsch	DE 020173	9925
24737 7590 05/14/2007 PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510			EXAMINER WALFORD, NATALIE K	
			ART UNIT 2879	PAPER NUMBER
			MAIL DATE 05/14/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/520,804	Applicant(s) POLLMANN-RETSCH ET AL.	
	Examiner Natalie K. Walford	Art Unit 2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16 is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-8, and 10-15 is/are rejected.
- 7) ☒ Claim(s) 6 and 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 28, 2007 has been entered.

Response to Amendment

The Amendment, filed on February 28, 2007, has been entered and acknowledged by the Examiner. Newly added claim 16 has been entered. Claims 1-16 are pending in the instant application.

Claim Objections

Claim 16 is objected to because of the following informalities:

Claim 16 should read "in an independent fashion,...".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 2879

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Sakugi (JP 05-054862). The Examiner notes that a certified translation has been provided for Applicant.

Regarding claim 1, Sakugi discloses a discharge lamp having a reflector (item 7) and cooling means (items 5 and 9) in figure 1, which cooling means has at least one nozzle (items 5 and 9) through which a flow of gas can be directed onto the discharge lamp, wherein the at least one nozzle is arranged such that it does not extend, at least to any substantial degree, into a beam path produced by the lamp and the reflector.

Regarding claim 2, Sakugi discloses a discharge lamp as claimed in claim 1, wherein the at least one nozzle is inserted in a hole in the reflector (see FIG. 1).

Regarding claim 3, Sakugi discloses a discharge lamp as claimed in claim 1, wherein a velocity of the flow of gas emerging from the at least one nozzle is of a value such that a turbulent flow is produced that surrounds at least part of the lamp (paragraph 11).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-5, 7-8, and 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakugi (JP 05-054862) in view of Lapatovich et al. (US 6,016,031).

Regarding claim 4, Sakugi discloses a discharge lamp as claimed in claim 1, but does not expressly disclose that at least two nozzles that are at an angle to one another are directed at the discharge lamp such that a turbulent flow is produced that surrounds at least part of the lamp, as claimed by Applicant. The Examiner notes that Sakugi discloses that a nozzle produces turbulent flow (paragraph 11). Lapatovich is cited to show a discharge lamp in figure 3 with multiple nozzles (item 40) directed at a discharge lamp. Lapatovich teaches that the nozzles provide uniform cooling and prevent transient, hot spot development (column 4, lines 54-56).

Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify Sakugi's invention to include at least two nozzles that are at an angle to one another are directed at the discharge lamp such that a turbulent flow is produced that surrounds at least part of the lamp as suggested by Lapatovich for providing uniform cooling and preventing transient, hot spot development.

Regarding claim 5, the combined reference of Sakugi and Lapatovich disclose a discharge lamp as claimed in claim 4, wherein the nozzles are at an angle of approximately 90° to one another (Lapatovich; column 4, lines 52-54).

Regarding claim 7, Sakugi discloses a discharge lamp as claimed in claim 1, but does not expressly disclose that at least one first nozzle is directed at a region of a discharge vessel that is at the top in the position in which the discharge lamp is operating, and at least one second nozzle is directed at a region of a discharge vessel that is at the bottom in this same operating position, as claimed by Applicant. Lapatovich is cited to show a discharge lamp in figure 3 with a first and second nozzle (item 40). Lapatovich teaches that the nozzles provide uniform cooling and prevent transient, hot spot development (column 4, lines 54-56).

Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify Sakugi's invention to include at least one first nozzle is directed at a region of a discharge vessel that is at the top in the position in which the discharge lamp is operating, and at least one second nozzle is directed at a region of a discharge vessel that is at the bottom in this same operating position as suggested by Lapatovich for providing uniform cooling and preventing transient, hot spot development.

Regarding claim 8, the combined reference of Sakugi and Lapatovich discloses a discharge lamp as claimed in claim 7, wherein a velocity of the flow of gas passing through at least one of the nozzles can be controlled as a function of the operating position of the discharge lamp (Sakugi; paragraph 11). The Examiner notes that a "blast time" and "no-blast time" show that the nozzles can be controlled.

Regarding claim 10, Sakugi discloses a discharge lamp in figure 1 comprising: a discharge element (item 1); a reflector (item 7) about the discharge element for producing a beam path toward an exit window (top of item 7); cooling means, comprising at least one nozzle (items 5 and 9) arranged at the exterior of the reflector and having an opening at the boundary of the reflector inside the lamp (see FIG. 1), the nozzle pointing toward the discharge element, but does not expressly disclose that the nozzle is not parallel to an axis of symmetry created by the discharge element and a neck of the reflector, as claimed by Applicant. Lapatovich is cited to show a discharge lamp in figure 3 with a nozzle (item 40) that is not parallel to an axis of symmetry created by a discharge element (item in middle not labeled) and a neck of the reflector (not labeled). Lapatovich teaches that the nozzles provide uniform cooling and prevent transient, hot spot development (column 4, lines 54-56).

Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify Sakugi's invention to include the nozzle is not parallel to an axis of symmetry created by the discharge element and a neck of the reflector as suggested by Lapatovich for providing uniform cooling and preventing transient, hot spot development.

Regarding claim 11, the combined reference of Sakugi and Lapatovich disclose the lamp of claim 10 comprising at least one second nozzle (Lapatovich; item 40), also having an opening at the boundary of the reflector inside the lamp, pointing toward the discharge element, but not parallel to the axis (Lapatovich; see FIG. 3), the second nozzle forming an angle with respect to the first nozzle such that a turbulent flow is produced around the discharge element (Lapatovich; column 4, lines 46-56).

Regarding claim 12, the combined reference of Sakugi and Lapatovich disclose the lamp of claim 10, wherein the nozzle is arranged perpendicularly to the beam path (Lapatovich; see FIG. 3).

Regarding claim 13, the combined reference of Sakugi and Lapatovich disclose the lamp of claim 10, comprising at least first and second nozzles (Lapatovich; item 40) arranged approximately opposite each other across the axis (Lapatovich; see FIG. 3).

Regarding claim 14, the combined reference of Sakugi and Lapatovich disclose the lamp of claim 10, wherein the nozzle is arranged near the exit window and pointing back approximately toward a neck of the reflector (Lapatovich; see FIG. 3).

Regarding claim 15, the combined reference of Sakugi and Lapatovich disclose the lamp of claim 10, wherein the nozzle is not arranged in a neck of the reflector (Lapatovich; see FIG. 3).

Allowable Subject Matter

Claims 6 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 6, the references of the Prior Art of record fails to teach or suggest the combination of the limitations as set forth in claim 6, specifically for the limitation of a first sensor arranged adjacent at least one of the nozzles to sense the velocity and/or the pressure and/or the flow-rate of a flow of gas passing through the nozzle in combination with other claimed features of the present claimed invention.

Regarding claim 9, the references of the Prior Art of record fails to teach or suggest the combination of the limitations as set forth in claim 9, specifically for the limitation of a second sensor is provided to sense the operating position of the discharge lamp and to control the velocity of the flow of gas passing through at least one of the nozzles as a function of the operating position in combination with other claimed features of the present claimed invention.

Claim 16 is allowed.

The following is an examiner's statement of reasons for allowance:

Regarding claim 16, the references of the Prior Art of record fails to teach or suggest the combination of the limitations as set forth in claim 16, specifically for the limitation of at least one first sensor for measuring a cooling effect of the nozzles; and at least one second sensor for detecting an operation position of the lamp.

Response to Arguments

Applicant's arguments filed January 25, 2007 have been fully considered but they are not persuasive. The Examiner respectfully disagrees with Applicant's arguments. Regarding Applicants arguments that Sakugi's invention is of "pre-UHP era", the Examiner notes that arguments of counsel cannot take place of evidence in the record. There is no evidence in Sakugi that the light emits as suggested by Applicant or that the lamp is of the "pre-UHP era", also suggested by Applicant. Furthermore, the nozzle of Sakugi does not extend to "any substantial degree" as suggested by Applicant. The nozzle is clearly in the back of the reflector and is located at least 270 degrees not "substantially" extending with the beam path. Regarding Applicant's arguments on page 12, the Examiner does not see how these calculations were made or their relevance. It appears Applicant has made their own calculations and is comparing them to the reference. Regarding "turbulent flow", the Examiner respectfully disagrees and notes that the nozzle is a blast nozzle, where the flow of air is clearly not stagnant or calm, but turbulent. Here, it clearly discussed that the flow of gas is not constant and flows only where the lamp is turned on. Regarding claim 10, there is nothing to suggest that the nozzles are not arranged at the exterior. The proposed side section is only a proposal and Lapatovich does not suggest that the nozzles cannot be arranged to the exterior. Lapatovich does disclose that they are arranged on a reflector and they appear to be arranged to the exterior. Applicant has provided figure E as an argument, but figure E has not been found persuasive since there is no suggestion that the reflector as described by Lapatovich looks like that.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Natalie K. Walford whose telephone number is (571)-272-6012. The examiner can normally be reached on Monday-Friday, 8 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (571)-272-2457. The fax phone number for the organization where this application or proceeding is assigned is (571)-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

nkW

Art Unit: 2879

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Natalie K. Walford whose telephone number is (571)-272-6012. The examiner can normally be reached on Monday-Friday, 8 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (571)-272-2457. The fax phone number for the organization where this application or proceeding is assigned is (571)-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

nkW
Natalie Walford
5/10/07

Sikha Roy
SIKHA ROY
PRIMARY PATENT EXAMINER